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ASSOCIATION BETWEEN FIRST-LINE THERAPY WITH SULFONYLUREA VERSUS METFORMIN AND RISK OF ALL-CAUSE MORTALITY: A RETROSPECTIVE STUDY

Poster Contributions
Poster Hall B1
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Background: Type 2 diabetes mellitus (T2DM) is a growing healthcare burden worldwide. Whether initial treatment with sulfonylureas has equal therapeutic effects in comparison with standard of care for patients with T2DM remains controversial.

Methods: Data was retrieved from Taiwan National Health Insurance. T2DM patients with age ≥30 years were selected if initiated with metformin or sulfonylurea as the first-line glucose-lowering regimen between 2000 and 2011. The primary endpoint was all-cause mortality. Times to the endpoint were compared using Cox proportional hazards models.

Results: Metformin was initiated in 6353 patients whereas 4220 patients were started with sulfonylurea. Patients with metformin were generally younger but had similar cardiovascular comorbidities compared with patients with sulfonylurea. During the median follow-up of 3.1 years, 388 and 810 death occurred in patients with metformin and with sulfonylurea, respectively (P<0.001). After accounting for patients characteristics and comorbidities, all-cause mortality was significantly increased for sulphonylurea compared with metformin (adjusted hazard ratio= 1.74, 95% confidence interval: 1.54-1.93, P<0.001).

Conclusion: All-cause mortality was significantly increased in patients initially treated with sulfonylurea compared with metformin. Our study indicates that first-line treatment with sulfonylurea should be reconsidered.